

Monitoring Data Record

Project Title: R-210C (Sites 4 and 5) COE Action ID: 1993-0-0570

Stream Name: unnamed tributary to the Little Crane Creek DWQ Number: 010404

City, County and other Location Information: Intersection of Service Rd. and Oak Leaf Rd. off of US 1 (Vass Bypass) in Lee County (Sta. 22+00 to Sta. 24+80)

Date Construction Completed: March 2004 Monitoring Year: ( 2 ) of 5

Ecoregion: \_\_\_\_\_ 8 digit HUC unit 03030004

USGS Quad Name and Coordinates: \_\_\_\_\_

**Rosgen Classification:** \_\_\_\_\_

Length of Project: 980' Urban or Rural: Rural Watershed Size: \_\_\_\_\_

Monitoring DATA collected by: M. Green, B. Johnson, B. Poole Date: 6/22/06

**Applicant Information:**

Name: NCDOT Roadside Environmental Unit

Address: 1425 Rock Quarry Rd. Raleigh, NC 27610

Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us

**Consultant Information:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email address: \_\_\_\_\_

**Project Status:** Complete

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**Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.):** Level 1 2 3

Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

**Permit Conditions:** : The permittee shall monitor the stream relocation site for a period of five years starting the year following construction. Monitoring data at the site should include the following: reference photos, plant survival, and channel stability. Data shall be collected each year for 5 years at the same time of year. No less than two bankfull events must be documented through the required 5-year monitoring period. If less than two bankfull events occur during the first 5 years, monitoring will continue until the second bankfull event is documented. The bankfull events must occur during separate monitoring years.

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Section 1. PHOTO REFERENCE SITES

*(Monitoring at all levels must complete this section)*

**Total number of reference photo locations at this site:** 7 reference points, 2 photos at each

**Dates reference photos have been taken at this site:** 6/7/05, 6/22/06

**Individual from whom additional photos can be obtained (name, address, phone):**

Other Information relative to site photo reference: \_\_\_\_\_

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

**Section 2. PLANT SURVIVAL**

**Attach plan sheet indicating reference photos.**

Identify specific problem areas (missing, stressed, damaged or dead plantings):

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Estimated causes, and proposed/required remedial action:

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ADDITIONAL COMMENTS: This site was replanted in February 2006 due to low survival rates from the initial planting. The streambanks were live staked with buttonbush and silky dogwood live stakes. The floodplain was replanted with river birch, swamp chestnut oak, and willow oak. Other vegetation noted onsite consisted of black willow, tulip poplar, sweetgum, woolgrass, fennel, goldenrod, *Juncus* sp., pine, lespedeza, *Pluchea* sp., sedge, cattail, and various grasses. Stem counts were conducted onsite. It was determined that 476 trees per acre are surviving.

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If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

### Section 3. CHANNEL STABILITY

**Visual Inspection:** The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

The stream is stabilized for the 2nd year of monitoring. A bankfull event has occurred since last year's monitoring visit. It was determined after last year's monitoring visit that no remedial action was necessary to fix the log vanes. Sediment moving through the stream has sealed the log vanes and all structures are functioning properly. A minor headcut was noted above the culvert crossing for Oak Leaf Road and some minor bank erosion on a log vane below Oak Leaf Road. No remedial action is necessary at this time. The sediment control stone that was noted still on site in last year's report was removed prior to replanting of the site.

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Date Inspected	Sta. 23+60	Sta. 22+80	Station Number	Station Number	Station Number
Structure Type		Log Vane			
Is water piping through or around structure?					
Head cut or down cut present?	Headcut				
Bank or scour erosion present?		Bank Erosion			
Other problems noted?					

**NOTE:** Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.



# UT Little Crane Creek



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6

Year 2 – June 2006



# UT Little Crane Creek



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12

Year 2 – June 2006



# UT Little Crane Creek



Photo 13



Photo 14



Bank erosion below log vane @ Sta. 22+80